

## Title (en)

Highly functional, highly or hyper-branched polycarbonates and their manufacture and application thereof

## Title (de)

Hochfunktionelle, Hoch- oder Hyperverzweigte Polycarbonate sowie deren Herstellung und Verwendung

## Title (fr)

Polycarbonate hautement fonctionnel, hautement ou hyper-ramifié ainsi que son procédé de fabrication et d'utilisation

## Publication

**EP 2204424 A1 20100707 (DE)**

## Application

**EP 10156088 A 20060223**

## Priority

- EP 06708492 A 20060223
- DE 102005009166 A 20050225

## Abstract (en)

Use of high-functional, hyper branched polycarbonate (H) (obtained by: preparing one/more condensation products (K) either by reacting organic carbonates (A) with an aliphatic, aliphatic/aromatic or aromatic alcohol (B1) which exhibits at least 3 hydroxyl group, under elimination of alcohol ROH; or by reaction of phosgene, diphosgene or triphosgene with (B1) under the release of chlorine hydrogen; and intermolecular conversion of (K) to (H)), as solvent auxiliary agent. Use of high-functional, hyper branched polycarbonate (H) (obtained by: preparing one/more condensation products (K) either by reacting organic carbonates (A) of formula  $(RO[(CO)O]_nR)$  with an aliphatic, aliphatic/aromatic or aromatic alcohol (B1) which exhibits at least 3 hydroxyl group, under elimination of alcohol ROH; or by reaction of phosgene, diphosgene or triphosgene with (B1) under the release of chlorine hydrogen; and intermolecular conversion of (K) to (H)) (where the ratio of OH group to the phosgene or carbonate in the reaction mixture is selected such that (K) in the agent contains more of carbonate- or carbamoylchloride group and OH group), as solvent auxiliary agent. R : aliphatic, aromatic/aliphatic or aromatic 1-20C hydrocarbon; and n : 1-5. Independent claims are included for: (1) a coating mass comprising (H) and optionally blocked isocyanates, epoxy groups containing bonding agents or alkyl resins; (2) a procedure for coating the substrate comprising optionally drying or hardening the coating mass on a substrate, subsequently to the distance of a solvent; and (3) a water-emulsion of (H) comprising the reaction product of the polycarbonate and at least a monofunctional polyalkylene oxide polyether alcohol.

## Abstract (de)

Hochfunktionelle, hoch- oder hyperverzweigte Polycarbonate auf Basis von Dialkyl- oder Diarylcarbonaten oder Phosgen, Diphosgen oder Triphosgen und aliphatischen, aliphatisch/aromatischen und aromatischen Di- oder Polyolen sowie ihre Verwendung zur Herstellung von Lacksystemen.

## IPC 8 full level

**C09D 169/00** (2006.01); **C08G 64/42** (2006.01)

## CPC (source: EP KR US)

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## Citation (search report)

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- [E] WO 2006018179 A1 20060223 - BASF AG [DE], et al
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## DOCDB simple family (application)

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